

CAS ONLINE PRINTOUT

=> d his

(FILE 'HOME' ENTERED AT 08:23:40 ON 19 JUN 2006)

FILE 'REGISTRY' ENTERED AT 08:23:54 ON 19 JUN 2006

E TERTIARY-BUTYL LITHIUM/CN

L1 STRUCTURE UPLOADED
L2 STRUCTURE UPLOADED
L3 2 S L1
L4 27 S L1 CSS FUL
L5 36 S L2
L6 17048 S L2 FUL
E DIISOPROPENYLBENZEN/CN
L7 1 S E4
L8 1 S L7

FILE 'CAPLUS' ENTERED AT 08:27:36 ON 19 JUN 2006

L9 2006 S L4
L10 32411 S L6
L11 60 S L8
L12 0 S L9 AND L10 AND L11
L13 3 S L8 AND L4

=> d 11

L1 HAS NO ANSWERS

L1 STR

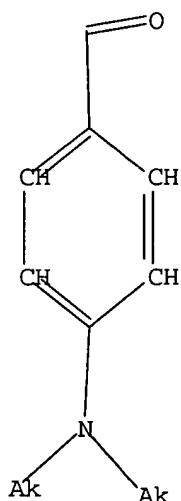


Structure attributes must be viewed using STN Express query preparation.

=> d 12

L2 HAS NO ANSWERS

L2 STR

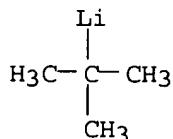


CAS ONLINE PRINTOUT

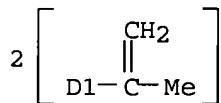
Structure attributes must be viewed using STN Express query preparation.

=> d bib abs hitstr kwic 1-3 113

L13 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2000:303181 CAPLUS
 DN 133:59140
 TI Preparation and characterization of a linear poly(4-vinylpyridine)-b-polybutadiene-b-poly(4-vinylpyridine) using a t-butyllithium/m-diisopropenylbenzene diadduct as a dicarbanion initiator
 AU Li, Hsien-Jung; Tsiang, Raymond Chien-Chao
 CS Department of Chemical Engineering, National Chung Cheng University, Chiayi, Taiwan
 SO Polymer (2000), 41(15), 5601-5610
 CODEN: POLMAG; ISSN: 0032-3861
 PB Elsevier Science Ltd.
 DT Journal
 LA English
 AB A linear, nearly monodisperse poly(4-vinylpyridine)-b-polybutadiene-b-poly(4-vinylpyridine) (VVB) has been synthesized using a dicarbanion initiator. The diinitiator, comprising a 2:1 molar ratio of tert-BuLi to m-diisopropenylbenzene, was prepared at -20°C in the presence of Et₃N, amounting to 1.5 times of the tert-BuLi moles to ensure a difunctionality. The VVB synthesis was conducted at -80°C in a mixed THF/PhMe solvent in order to circumvent the chain branching reactions arising from the -N=CH- group of the 4-vinylpyridine. The absence of chain branching under such conditions has been verified by GPC/MALL and UV analyses, and syntheses at higher temps. are detrimental. Compared with an analogous polystyrene-b-polybutadiene-b-polystyrene (SBS), VVB relaxes slower with a higher activation energy of relaxation. Although phase separation occurs for both VVB and SBS, VVB exhibits a different morphol., having a hard domain of a droplet-cluster type. The polarity of the poly(4-vinylpyridine) not only produces a T_g higher than that of the polystyrene, but also increases the T_g of the rubbery polybutadiene phase. The relaxation mechanism deduced based on the X-method indicates that contributions to relaxation for both VVB and SBS are in such order: phys. flow > domain destruction > phys. untangling.
 IT 594-19-4, tert-Butyllithium 27342-70-7,
 Diisopropenylbenzene
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (starting material; catalysts for preparation of butadiene-vinylpyridine triblock copolymers)
 RN 594-19-4 CAPLUS
 CN Lithium, (1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



RN 27342-70-7 CAPLUS
 CN Benzene, bis(1-methylethenyl)- (9CI) (CA INDEX NAME)



RE.CNT 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

IT 594-19-4, tert-Butyllithium 27342-70-7,
Diisopropenylbenzene
RL: RCT (Reactant); RACT (Reactant or reagent)
(starting material; catalysts for preparation of butadiene-vinylpyridine
triblock copolymers)

L13 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1999:511189 CAPLUS

DN 131:144984

TI Gel-free process for making functionalized anionically polymerized
polymers

IN Bening, Robert Charles; Goodwin, Daniel Earl; Handlin, Dale Lee, Jr.;
Wilkey, John David; Willis, Carl Lesley; Donaho, Charles Roy; Diaz, Zaida

PA Shell Internationale Research Maatschappij BV, Neth.

SO PCT Int. Appl., 80 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

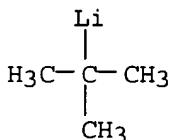
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9940121	A1	19990812	WO 1999-EP667	19990203
	W: JP, KR				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6462143	B1	20021008	US 1999-234335	19990120
	EP 1042369	A1	20001011	EP 1999-907478	19990203
	R: BE, DE, ES, FR, GB, IT, NL				
	JP 2002502891	T2	20020129	JP 2000-530548	19990203
	TW 428003	B	20010401	TW 1999-88102075	19990210
	US 6242537	B1	20010605	US 1999-260239	19990302
	US 6242538	B1	20010605	US 1999-304915	19990504
PRAI	US 1998-73592P	P	19980203		
	US 1998-79876P	P	19980330		
	US 1998-87920P	P	19980604		
	WO 1999-EP667	W	19990203		

AB The present invention relates to a process for making gel-free
functionalized anionic polymers using multi-alkali metal initiators which
comprises: anionically polymerizing at least one monomer (e.g., butadiene) with
a multi-alkali metal initiator in a hydrocarbon solvent, capping the
polymer by adding to the polymer a capping agent (e.g., ethylene oxide)
that reacts with the ends of the polymer chains such that strongly associating
chain ends are formed wherein a strongly associating gel is formed, and adding
a trialkyl aluminum compound to the gel. According to a further embodiment,
the invention relates to a gel-free process for making functionalized
anionic polymers using multi-alkali metal initiators which comprises:
anionically polymerizing at least one monomer with a multi-alkali metal

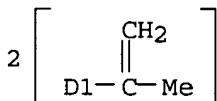
CAS ONLINE PRINTOUT

initiator in a hydrocarbon solvent, adding a trialkylaluminum compound before or during polymerization or before or at the same time as the capping agent, and capping the polymer by adding to the polymer a capping agent which, in the absence of the trialkylaluminum compound, would react with the polymer chain ends to form strongly associating chain ends wherein a strongly associating gel would be formed. Further aspects of the invention relate to a process for making functionalized polymer from unfunctionalized polymer; to a process for making functionalized polymer from polymers that are functionalized with a different functionality; and to a process for hydrogenating the polymers prepared by the above processes.

IT 594-19-4, tert-Butyllithium 27342-70-7,
 Diisopropenylbenzene
 RL: CAT (Catalyst use); USES (Uses)
 (gel-free process for making functionalized anionically polymerized polymers)
 RN 594-19-4 CAPLUS
 CN Lithium, (1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



RN 27342-70-7 CAPLUS
 CN Benzene, bis(1-methylethenyl)- (9CI) (CA INDEX NAME)



RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

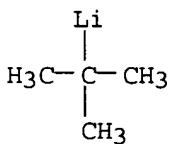
IT 594-19-4, tert-Butyllithium 598-30-1, sec-Butyllithium
 27342-70-7, Diisopropenylbenzene
 RL: CAT (Catalyst use); USES (Uses)
 (gel-free process for making functionalized anionically polymerized polymers)

L13 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1997:247869 CAPLUS
 DN 126:225713
 TI Star polymers having functional and nonfunctional ends from mixed initiators
 IN Quirk, Roderic P.
 PA FMC Corp., USA
 SO PCT Int. Appl., 81 pp.
 CODEN: PIXXD2
 DT Patent
 LA English

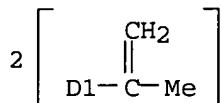
CAS ONLINE PRINTOUT

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9705179	A1	19970213	WO 1996-US12380	19960729
	W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG				
	RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN				
	AU 9666819	A1	19970226	AU 1996-66819	19960729
PRAI	US 1995-1687P	P	19950731		
	WO 1996-US12380	W	19960729		
OS	MARPAT 126:225713				
AB	Butadiene or isoprene and styrene or α -methylstyrene are polymerized singly, sequentially, or as mixts. ≥ 30 min at -30 to 150° in a solvent in the presence of BuLi, sec-BuLi, or tert-BuLi and LiQnZT(AR1R2R3) $_m$ [Q = unsatd. hydrocarbylene group derived by incorporation of ≥ 1 of conjugated dienes and alkenyl aromatic compds. into the LiZ linkage at a CLi bond; Z = C3-25 hydrocarbylene, T = O, S, or N, (AR1R2R3) $_m$ = protecting group, A = C or Si, R1, R2, R3 = H, (substituted) alkyl, (substituted) aryl, or C5-12 cycloalkyl; m = 1 or 2, n = 0-5] as initiators. The resulting living polymer anions are reacted ≥ 1 h with ≥ 1 of SiCl4, SnCl4, PCl3, diisopropenylbenzene, or divinylbenzene at 20-135° and terminated by a protic agent. The protecting group is removed, and the functional groups on the end of some of the arms of the star polymers are reacted with di- or polyfunctional comonomers to give the title polymers. A typical protected star polymer having tert-butoxy and sec-Bu end groups was manufactured by polymerization of 15.6 g isoprene 5 h at 50-55° in cyclohexane in the presence of sec-BuLi and 3-tert-butoxy-1-propyllithium chain-extended with 2 units of isoprene and polymerization of the resulting living polymer 9 h at 60° with 0.26 mL divinylbenzene.				
IT	594-19-4, tert-Butyllithium				
	RL: CAT (Catalyst use); USES (Uses)				
	(catalyst; star polymers having functional and nonfunctional ends and their manuf by anionic polymerization in presence of nonfunctional and protected functional catalysts)				
RN	594-19-4 CAPLUS				
CN	Lithium, (1,1-dimethylethyl)- (9CI) (CA INDEX NAME)				



IT	27342-70-7, Diisopropenylbenzene
	RL: RCT (Reactant); RACT (Reactant or reagent)
	(chain coupling agent, in claims; star polymers having functional and nonfunctional ends and their manuf by anionic polymerization in presence of nonfunctional and protected functional catalysts)
RN	27342-70-7 CAPLUS
CN	Benzene, bis(1-methylethenyl)- (9CI) (CA INDEX NAME)



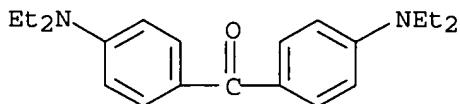
- IT 109-72-8, Butyllithium, uses **594-19-4**, tert-Butyllithium
 598-30-1, sec-Butyllithium 104164-68-3 104646-81-3 104646-83-5
 104673-85-0, 3-tert-Butoxy-1-propyllithium 131904-35-3 136119-58-9
 146681-51-8 157666-87-0 157666-89-2 159035-03-7 171247-67-9
 176649-04-0 179538-69-3 188244-77-1 188244-78-2 188244-79-3
 188244-80-6 188244-81-7 188244-82-8 188244-83-9 188244-84-0
 188244-85-1 188244-86-2 188244-89-5 188244-90-8 188244-91-9
 188244-92-0 188244-93-1 188244-94-2 188244-95-3 188244-96-4
 188244-97-5 188244-99-7 188245-01-4 188245-02-5 188245-04-7
 188245-06-9 188245-10-5 188245-12-7 188245-15-0 188245-17-2
 188245-20-7 188245-23-0 188245-26-3 188245-28-5 188245-29-6
 188245-30-9 188245-31-0 188245-32-1 188245-33-2 188295-41-2
 RL: CAT (Catalyst use); USES (Uses)
 (catalyst; star polymers having functional and nonfunctional ends and
 their manuf by anionic polymerization in presence of nonfunctional and
 protected functional catalysts)
- IT 1321-74-0, Divinylbenzene, reactions 1322-23-2, Trivinylbenzene
 7646-78-8, Tin tetrachloride, reactions 7719-12-2, Phosphorus
 trichloride 10026-04-7, Silicon tetrachloride **27342-70-7**,
 Diisopropenylbenzene 77221-84-2, Divinylnaphthalene 118063-73-3,
 1,3,5-Tris(1-phenylethenyl)benzene 188312-15-4
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (chain coupling agent, in claims; star polymers having functional and
 nonfunctional ends and their manuf by anionic polymerization in presence of
 nonfunctional and protected functional catalysts)

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CAS ONLINE PRINTOUT

=> d scan

L15 11 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN Methanone, bis[4-(diethylamino)phenyl]- (9CI)
MF C21 H28 N2 O
CI COM



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):al
'AL' IS NOT VALID HERE

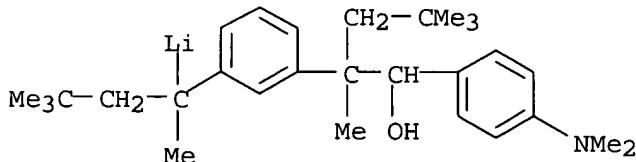
To display more answers, enter the number of answers you would like to see. To end the display, enter "NONE", "N", "0", or "END".

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):all
'ALL' IS NOT VALID HERE

To display more answers, enter the number of answers you would like to see. To end the display, enter "NONE", "N", "0", or "END".

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):12

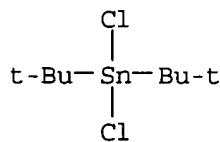
L15 11 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN Lithium, [1-[3-[1-[[4-(dimethylamino)phenyl]hydroxymethyl]-1,3,3-trimethylbutyl]phenyl]-1,3,3-trimethylbutyl]-, lithium salt (9CI)
MF C29 H44 Li N O . Li



● Li

L15 11 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN Stannane, dichlorobis(1,1-dimethylethyl)- (9CI)
MF C8 H18 Cl2 Sn
CI COM

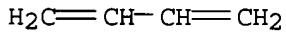
CAS ONLINE PRINTOUT



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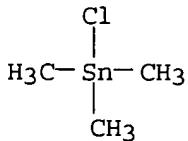
L15 11 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN 1,3-Butadiene, homopolymer (9CI)
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT
MF (C4 H6)x
CI PMS, COM

CM 1



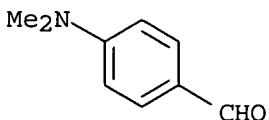
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L15 11 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN Stannane, chlorotrimethyl- (8CI, 9CI)
MF C3 H9 Cl Sn
CI COM



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L15 11 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN Benzaldehyde, 4-(dimethylamino)- (9CI)
MF C9 H11 N O
CI COM

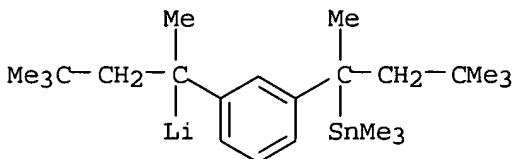


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

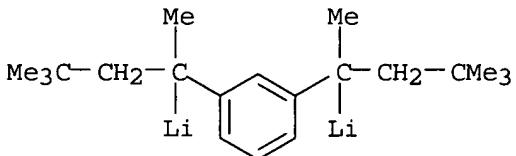
L15 11 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN

CAS ONLINE PRINTOUT

IN Lithium, [1,3,3-trimethyl-1-[3-[1,3,3-trimethyl-1-(trimethylstannyl)butyl]phenyl]butyl]- (9CI)
MF C23 H41 Li Sn



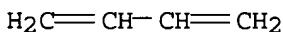
L15 11 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN Lithium, [μ -[1,3-phenylenebis(1,3,3-trimethylbutylidene)]]di- (9CI)
MF C20 H32 Li2



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L15 11 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN Benzene, ethenyl-, polymer with 1,3-butadiene (9CI)
ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT
MF (C8 H8 . C4 H6)x
CI PMS, COM

CM 1



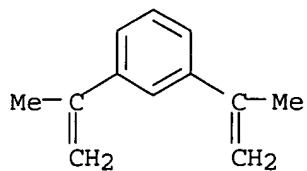
CM 2



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

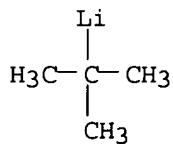
L15 11 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN Benzene, 1,3-bis(1-methylethethyl)- (9CI)
MF C12 H14
CI COM

CAS ONLINE PRINTOUT



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L15 11 ANSWERS REGISTRY COPYRIGHT 2006 ACS on STN
IN Lithium, (1,1-dimethylethyl)- (9CI)
MF C4 H9 Li
CI COM



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

ALL ANSWERS HAVE BEEN SCANNED

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CAS ONLINE PRINTOUT

=> d his

(FILE 'HOME' ENTERED AT 08:23:40 ON 19 JUN 2006)

FILE 'REGISTRY' ENTERED AT 08:23:54 ON 19 JUN 2006

E TERTIARY-BUTYL LITHIUM/CN

L1 STRUCTURE UPLOADED
L2 STRUCTURE UPLOADED
L3 2 S L1
L4 27 S L1 CSS FUL
L5 36 S L2
L6 17048 S L2 FUL
E DIISOPROPENYLBENZEN/CN
L7 1 S E4
L8 1 S L7

FILE 'CAPLUS' ENTERED AT 08:27:36 ON 19 JUN 2006

L9 2006 S L4
L10 32411 S L6
L11 60 S L8
L12 0 S L9 AND L10 AND L11
L13 3 S L8 AND L4
E US20040097634A1/PN
L14 1 S E3
SELECT RN L14 1

FILE 'REGISTRY' ENTERED AT 08:35:46 ON 19 JUN 2006

L15 11 S E1-E11
E BENZENE, 1,3-BIS(1-METHYLETHENYL)/CN
L16 1 S E4

FILE 'REGISTRY' ENTERED AT 08:40:23 ON 19 JUN 2006

L17 1 S L16

FILE 'CAPLUS' ENTERED AT 08:40:35 ON 19 JUN 2006

L18 216 S L16
L19 2 S L9 AND L10 AND L18

=> d bib abs hitstr 1-2

L19 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2002:221243 CAPLUS
DN 136:264349
TI Synthesis of aromatic solvent-soluble functionalized di-lithium initiators
in rubber manufacture
IN Halasa, Adel Farhan; Hsu, Wen-liang
PA Goodyear Tire & Rubber Co., USA
SO U.S. Pat. Appl. Publ., 8 pp.
CODEN: USXXCO
DT Patent
LA English
PAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2002035294	A1	20020321	US 2001-944664	20010831
	US 6686504	B2	20040203		
	GB 2368845	A1	20020515	GB 2001-21070	20010830
	GB 2368845	B2	20040630		
	US 2004097634	A1	20040520	US 2003-713122	20031114
PRAI	US 2000-229494P	P	20000831		
	US 2001-944664	A3	20010831		

CAS ONLINE PRINTOUT

OS MARPAT 136:264349

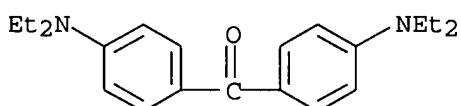
AB The process can be conducted in the absence of amines which is desirable since amines can act as modifiers for anionic polymers. A dilithium initiator is made by reacting diisopropenylbenzene with a tertiary alkyl lithium compound in an aromatic solvent at 0°-100°, where the preferred initiator, m-di-(1-lithio-1-methyl-3,3-dimethylbutyl)benzene (I), is made by reacting diisopropenylbenzene with tertiary-butyllithium in an aromatic solvent. Thus, 1,3-butadiene was polymerized at 75° for 2 h in the presence of I to give polybutadiene having a glass transition temperature -99° and Mooney viscosity (ML-4, 100°) 44.

IT 90-93-7DP, 4,4'-Bis(diethylamino)benzophenone, reaction products with butadiene rubber

RL: IMF (Industrial manufacture); PREP (Preparation)
(aromatic solvent-soluble functionalized di-lithium initiators in rubber manufacture)

RN 90-93-7 CAPLUS

CN Methanone, bis[4-(diethylamino)phenyl]- (9CI) (CA INDEX NAME)

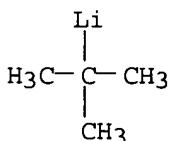


IT 594-19-4 3748-13-8, m-Diisopropenylbenzene

RL: RCT (Reactant); RACT (Reactant or reagent)
(aromatic solvent-soluble functionalized di-lithium initiators in rubber manufacture)

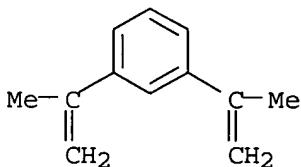
RN 594-19-4 CAPLUS

CN Lithium, (1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



RN 3748-13-8 CAPLUS

CN Benzene, 1,3-bis(1-methylethyl)- (9CI) (CA INDEX NAME)



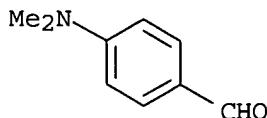
IT 100-10-7, p-Dimethylaminobenzaldehyde

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction with bislithium trimethylbutyl benzene; aromatic solvent-soluble functionalized di-lithium initiators in rubber manufacture)

RN 100-10-7 CAPLUS

CN Benzaldehyde, 4-(dimethylamino)- (9CI) (CA INDEX NAME)

CAS ONLINE PRINTOUT



L19 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2001:294975 CAPLUS

DN 134:312323

TI Preparation of conjugated diene-aromatic vinyl compound random copolymer functionalized at both terminals using difunctional initiators

IN Shin, Hyeon Cheol; Lee, Chang Hwan

PA Korea Kumho Petrochemical Co., Ltd., S. Korea

SO U.S., 5 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 6221975	B1	20010424	US 1999-377305	19990819
	KR 2000040682	A	20000705	KR 1998-56389	19981219
PRAI	KR 1998-56389	A	19981219		

AB Title polymer with improved rolling resistance, useful in making tire treads (no data), is prepared by polymerizing a conjugated diene and a vinyl aromatic monomer in the presence of a difunctional initiator derived from a divinyl aromatic compound and an organo-lithium compound in a hydrocarbon solvent

to form a living copolymer having one terminal of two anionic sites of the initiator, and adding a polar and electrophilic compound to the living polymer. Thus, butadiene 1472.2 and styrene 196.83 mmol were reacted in the presence of 0.4 mmol 1,3-bis(1-lithio-1,3,3-trimethylbutyl)benzene obtained from 1,3-diisopropenyl benzene, tert-butyllithium and triethylamine in cyclohexane THF mixture solvent at 40° for 2 h, and mixed with 2 mmol 4-dimethylaminobenzophenone in THF at 60° for 2 h to give a polymer having weight average mol. weight 257,000 g/mol, mol. weight distribution 1.14, styrene content 20.8%, vinyl content 62% and terminal functionalization efficiency 65%.

IT 90-93-7DP, 4,4'-Bis(diethylamino)benzophenone, reaction products

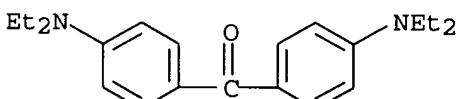
with butadiene-styrene copolymer 530-44-9DP,

4-Dimethylaminobenzophenone, reaction products with butadiene-styrene copolymer

RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (preparation of conjugated diene-aromatic vinyl compound random copolymer functionalized at both terminals using difunctional initiators)

RN 90-93-7 CAPLUS

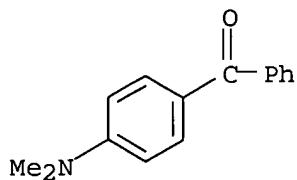
CN Methanone, bis[4-(diethylamino)phenyl]- (9CI) (CA INDEX NAME)



RN 530-44-9 CAPLUS

CN Methanone, [4-(dimethylamino)phenyl]phenyl- (9CI) (CA INDEX NAME)

CAS ONLINE PRINTOUT

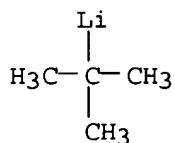


IT 594-19-4, tert-Butyllithium 3748-13-8, 1,3-Diisopropenyl benzene

RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of dilithium initiators)

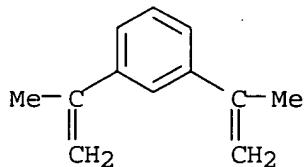
RN 594-19-4 CAPLUS

CN Lithium, (1,1-dimethylethyl)- (9CI) (CA INDEX NAME)



RN 3748-13-8 CAPLUS

CN Benzene, 1,3-bis(1-methylethenyl)- (9CI) (CA INDEX NAME)



RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

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